

Serial No.: 10/510,572
Atty. Docket No.: P70170US0

IN THE SPECIFICATION:

On page 1, line 2, please insert the following headings:

--BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION--.

On page 1, line 7, please insert the following heading:

--2. DESCRIPTION OF THE RELATED ART--.

On page 1, please delete the fourth and fifth paragraphs, beginning on line 20, and insert the following new paragraphs in place thereof:

--Testing of a multiple beam antenna may take place in steps. A first test can be performed in a laboratory environment. After mounting in a craft, however, the antenna must finally be tested under dynamic conditions, i.e. while the craft is moving.

SUMMARY OF THE INVENTION

The present invention relates to a method of verifying a multiple beam antenna placed on a craft, such as a ship. In such tests, the function of the antenna is verified under various

Serial No.: 10/510,572
Atty. Docket No.: P70170US0

sea conditions. A stabilising system, if any, will then also be fully tested.

A special problem arises when it is desirable to verify data of a multiple beam antenna when the equipment for calculating and generating pulses is not available. In this case, some kind of provisional solution must be prepared, allowing the function of the multiple beam antenna itself to be verified. The object of the present invention is to solve this problem.

Accordingly, the present invention is directed to a method for dynamically verifying a multiple beam antenna which is placed on a craft including a device for determining the position and course of the craft and a transmitter device which, via the antenna, can emit pulsed signals. Multiple transponders are placed in different directions round a measuring area within which the craft is intended to move, with each transponder being adapted to receive a pulsed signal of at least one frequency, different for the different transponders, via a receiving antenna which is capable of receiving incoming signals from the entire measuring area. A common measuring station is placed in connection with the measuring area, with the transponders being adapted to send, after receiving the pulsed signal, a corresponding pulsed signal to the measuring station in such a

Serial No.: 10/510,572
Atty. Docket No.: P70170US0

manner that it can be determined at the measuring station from which transponder each received signal comes. The craft is made to move within the measuring area, with the position and course of the craft being determined before a measuring sequence, with a measuring sequence being emitted from the craft via the antenna that is to be verified. The measuring sequence includes a reference signal from the craft to the measuring station, a first pulsed signal to the first transponder, a second pulsed signal to the second transponder etc., with the measuring station detecting the reference signal and the subsequent pulsed signals from the transponders. The measuring procedure is repeated while the craft is moving within the measuring area, and the measuring station calculates to what degree the antenna manages to direct signals in different directions round the craft for different frequencies.

Also according to the present invention, the different transponders can emit signals to the measuring station within different, mutually neighbouring, narrowband frequency ranges.--

On page 1, line 34, insert the following heading:

--BRIEF DESCRIPTION OF THE DRAWINGS--.

Serial No.: 10/510,572
Atty. Docket No.: P70170US0

On page 2, line 12, insert the following heading and paragraph following thereafter:

--DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Further scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.--.

On page 4, please amend the second paragraph beginning on line 9, as follows:

--The receiving antenna 9 should have a beam that covers the current geometry of the ship movements provided by the target path. A simple antenna is a suitable alternative since the antenna gain should normally not constitute a problem. The transmitting antenna ¹³ 14 suitably consists of an antenna horn with a narrow beam. This is feasible when only a fixed connection between two points is involved.--

Serial No.: 10/510,572
Atty. Docket No.: P70170US0

On page 7, after the last line, please insert the following paragraph:

--The invention being thus described, it will be apparent that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all such modifications as would be recognized by one skilled in the art are intended to be included within the scope of the following claims.--.